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10/607,466	06/26/2003	Young-Hoon Kim	5000-1-376	6491
33942	7590	04/03/2006	EXAMINER	
CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652				WONG, ERIC K
		ART UNIT		PAPER NUMBER
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

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APR 03 2006

GROUP 2800

Application Number: 10/607,466

Filing Date: June 26, 2003

Appellant(s): KIM ET AL.

Steve Cha
For Appellant

EXAMINER'S ANSWER

This is in response to the substitute appeal brief filed 1/9/06, as prior appeal brief dated 1/24/05 was defective. The Information Disclosure Statements filed 9/27/04 and 3/21/05 have been considered and copies of forms PTO-1149 are attached hereto.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) *Prior Art of Record*

6,049,644	Dragone	04-2000
5,917,972	Davies	06-1999
2004/0001663	Vodrahalli et al.	01-2004
2003/0063891	Kim	04-2003
2002/0154863	Mizuno et al.	10-2002

(9) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Number 6,563,988 to McGreer.

As to claim 10, McGreer discloses in figures 3A and 8, a wavelength division multiplexer/demultiplexer comprising:

- An input waveguide having,
- A first sub-waveguide having a width that gradually increases in a progressing direction of an optical signal such that, starting at an input of the sub-waveguide and with the gradual increase, tapering of the sub-waveguide is directed inwardly in a concave manner (first portion of waveguide in figure 8); and

- A second sub-waveguide continuously joined to the first sub-waveguide, having a predetermined shape and a width that linearly decreases in the progressing direction of the optical signal passing through the first sub-waveguide (portion 250 in figure 8).
- Wherein the input waveguide, comprising the first and second sub-waveguides, is respectively disposed on both sides of the substrate centering on the arrayed waveguide grating, and the output waveguides are arranged in parallel with the input waveguide are respectively disposed on both sides of the waveguide centering on the arrayed waveguide grating (figure 3 and abstract).

Figure 3A depicts the invention of McGreer with the embodiments of figures 3C and 3B. However, the embodiment disclosed in figure 8 can be used in their place (see column 8, line 51-59 and column 15, line 13-33).

As to claim 11, figure 8 depicts a parabolic horn shaped waveguide.

As to claims 12-13, the second sub-waveguide has a predetermined shape having a width that linearly decreases in the propagating direction of the optical signal or a shape having a width that gradually decreases in the progressing direction of the optical signal passing though the first sub-waveguide (column 15, lines 25-27).

(10) Response to Argument

Applicant's arguments regarding claim 10:

- In response to Applicant's argument that McGreer fails to disclose or suggest any interference effect on neighboring channels (Applicant's Appeal Brief, page 6, lines 3-16), the Examiner respectfully disagrees. The structure of McGreer appears to bear close

resemblance to the structure **as claimed**. There is no limitations with respect to interference effects on neighboring channels contained in claim 10.

- In response to Applicant's argument that the prior Office Action fails to disclose or suggest how figure 8 of McGreer relates to present claim 10 feature "wherein the input waveguide, comprising the first and second sub-waveguides, is respectively disposed on both sides of the substrate centering on the arrayed waveguide grating, and the output waveguides arranged in parallel with the input waveguide are respectfully disposed on both sides of the substrate centering on the arrayed waveguide grating". Applicant further argues that McGreer fails to disclose an arrayed waveguide grating (AWG) structure. Examiner respectfully disagrees. McGreer discloses in the summary of his invention the basic use of his structure in a AWG setting (see column 5). Furthermore, figure 8 is one of many embodiments that is used in the AWG structure disclosed in figure 3A (180 in figure 3A is an AWG, also see column 8, line 57). Although figure 3A depicts the embodiments of 3B/3C, the embodiment of Figure 8 can be used in place of 3B/3C. These portions are on both sides of the substrate centering on the AWG and the inputs and outputs are situated in a parallel fashion as claimed.
- In response to the Applicant's argument that McGreer fails to disclose a bi-directional arrangement or bi-directional arrayed waveguide grating, Examiner respectfully notes that no specific bi-directional arrangement structure is claimed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

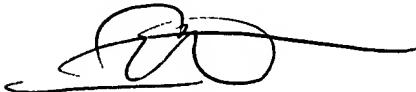
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